Habitat suitability of Proboscis Monkey *Nasalis larvatus* Wurmb. in Muara Kaman Sedulang Nature Reserve, Kutai Kartanegara District

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**Abstract.** Proboscis monkey (*Nasalis larvatus* Wurmb.) is an endemic primate species to Borneo’s island. Muara Kaman Sedulang Nature Reserve is one of protected area for this species in the island, but it’s riverine habitat is largely lost by forest fires and conversion for aquaculture, agriculture and settlements. A conservation action in the area needs spatial information regarding the habitat suitability of proboscis monkey. This study aimed to project a spatial model for habitat suitability of proboscis monkey in the reserve through species distribution modelling (SDM) using the Maximum Entropy (MaxEnt), based on the species’ occurrence records and environmental predictors. The results showed that suitable habitat for proboscis monkey was 3,410.27 ha (only 5.22% of the nature reserve total area). Model performance evaluation shows an accuracy of the Area Under Curve (AUC) value of 0.940, which is a very good category. Jackknife-test results showed the presence of secondary swamp forest (40.8%), distance from water bodies (25.9%), land cover (12.4%), secondary forest (6.3%) and mixed gardens (5.1%) are five variables that significantly contibute to the distribution of proboscis monkeys in the reserve. This study also provides some suggestions for conservation of proboscis monkey in remaining suitable habitat, which include local people involvement, monitoring and habitat restoration.